

REMARKS

I. Introduction

In response to the Office Action dated June 17, 2004, claims 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 20, 21, 23 and 24 have been amended. Claims 1-24 remain in the application. Re-examination and re-consideration of the application, as amended, is requested.

II. Claim Amendments

Applicants' attorney has made amendments to the claims as indicated above. These amendments were made solely for the purpose of clarifying the language of the claims, and were not required for patentability or to distinguish the claims over the prior art.

III. Prior Art Rejections

A. The Office Action Rejections

In paragraphs (2)-(3) of the Office Action, claims 17-24 were rejected under 35 U.S.C. §102(e) as being anticipated by Hsu et al., U.S. Patent No. 6,587,684 (Hsu). In paragraphs (4)-(5) of the Office Action, claims 1-16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Sieppi, U.S. Patent No. 6,577,637 (Sieppi) in view of Hsu.

Applicants' attorney respectfully traverses these rejections.

B. The Applicants' Independent Claims

Independent claims 1 and 5 are directed to tunneling voice data over one or more networks. Claim 1 is representative of both claims, and comprises the steps of:

- (a) transmitting a notification to a called party's network that a calling party's handset is calling from a particular type of network; and
- (b) loading one of a plurality of software-defined vocoders into the called party's handset based on the transmitted notification, wherein the loaded software-defined vocoder, when executed by the called party's handset, translates voice data communicated between the calling party's handset and the called party's handset.

Independent claims 9 and 13 are directed to tunneling voice data over one or more networks. Claim 9 is representative of both claims, and comprises the steps of:

(a) receiving a notification from a calling party's network that it is a particular type of network; and

(b) loading one of a plurality of software-defined vocoders into a called party's handset based on the received notification, wherein the loaded software-defined vocoder, when executed by the called party's handset, translates voice data communicated between the calling party's handset and the called party's handset.

Independent claims 17 and 21 are directed to tunneling voice data over one or more networks. Claim 17 is representative of both claims, and comprises the steps of:

(a) loading one of a plurality of vocoders into a processor of a handset, wherein the loaded vocoder is selected based on a particular type of network communicating with the handset; and

(b) executing the loaded vocoder in the processor of the handset, wherein the vocoder translates voice data communicated to the handset.

C. The Hsu Reference

Hsu describes a digital wireless telephone that downloads software related to digital telephone services using a client browser. The digital telephone initiates a data call to an interworking unit via a digital wireless telephone network, using a prescribed wireless data protocol such as IS-95A. The interworking unit recovers the payload of the wireless data packets to establish a two-way data link with the digital telephone. The interworking unit sends data messages to a destination server across a second two-way data link in a packet switched network to establish a two way session between the digital telephone and the destination server. The user of the digital telephone can thus communicate with the server via a two-way application-layer session using hypertext-based messaging. The digital telephone can thus navigate between different servers on the packet switched network for activation of different digital telephone services, and for downloading new software or updating existing software related to the digital telephone services.

D. The Sieppi Reference

Sieppi describes a switching means (BSC/MSC/VLR) of a mobile radio communication network (PLMN) that contains a subscriber type determining means (SSTDm) which determines on the basis of call set-up messages whether in particular the second subscriber station (WS) of an IP-network (INTRANET) is capable of performing an audio data encoding/decoding, in particular a GSM speech encoding/decoding. The subscriber station type determining means (SSTDm) switches

off an audio data encoding/decoding means (CODEC) in a base station controller (BSC) if the second subscriber station (WS) is capable of performing the speech encoding/decoding. Thus, a deterioration of the speech quality due to performing unnecessary audio data encoding/decoding is avoided and the bandwidth in the PLMN/data network can be utilized more efficiently.

E. The Applicants' Invention is Patentable Over the References

The Applicants' invention, as recited in the independent claims, is patentable over the references, because it contains limitations not taught by the references.

With regard to claims 17-24, the references do not teach or suggest loading one of a plurality of vocoders into a processor of a handset, wherein the loaded vocoder is selected based on a particular type of network communicating with the handset.

The Office Action, however, asserts that the selection of the vocoder based on the type of network is described at col. 16, lines 41-52 of Hsu.

Applicants' attorney disagrees. At the indicated location, Hsu merely describes the following:

Hsu: Col. 16, lines 41-52

Hence, the digital telephone is able to use a web-based approach for navigating the packet switched network for selectively accessing different servers on network 22 to obtain control software or other information related to digital telephone services. For example, the digital telephone may obtain billing and usage information by accessing a web page at the terminal 30 for the customer service center 32. The digital telephone 16 may also access a revision control server 26 configured for maintaining the digital telephone 16 with up to date firmware and/or software, including vocoder software 92, browser software 88, device drivers 94, and operating system 90.

The above portion of Hsu merely describes obtaining up-to-date software for the vocoder from a web server. However, Hsu does not teach or suggest that the handset may have a plurality of vocoders, or that the loaded vocoder is selected based on a particular type of network communicating with the handset. Indeed, the teaching of Hsu is to have only one type of vocoder in the handset, although the version of the vocoder may be updated from a web site.

With regard to claims 1-16, the references do not teach or suggest loading one of a plurality of software-defined vocoders into the called party's handset based on the transmitted or received notification that a called party's handset is calling from a particular type of network.

The Office Action, however, asserts that Sieppi discloses most of the elements of these claims. Specifically, the Office Action states that Sieppi discloses a method for tunneling voice data over one or more networks, comprising: sending a call set-up message from the first or second subscriber station to a switching means of the mobile radio communication network to setup a call between the first and second subscriber stations; determining on the basis of the call setup message whether the second subscriber station is of a type also comprising an audio data encoding/decoding means and setting up a call between the first and second subscriber station. Further, the Office Action states that Sieppi discloses that if the second subscriber station is not capable of performing the speech encoding decoding then the subscriber station type determining means switches on an audio data encoding/decoding means in a base station controller.

However, the Office Action acknowledges that Sieppi does not expressly disclose loading a software-defined vocoder into the called party. Nonetheless, the Office Action cites Hsu as teaching the selection of the vocoder based on the type of network, at col. 16, lines 41-52 of Hsu. Consequently, the Office Action asserts that it would have been obvious to one ordinary skill in the art at the time the invention was made to use the teachings from Hsu of loading a software defined vocoder to the second subscriber station disclosed by Sieppi.

Applicants' attorney disagrees. The pertinent locations in Sieppi merely describe the following:

Sieppi: Col. 5, line 65 – Col. 6, line 24

This object is solved by a method for performing data communications between a first subscriber station (MS) of a mobile radio communication network (PLMN) and a second subscriber station (WS) connectable to said mobile radio communication network (PLMN), wherein at least said first subscriber station (MS) comprises an audio data encoding/decoding means (CODEC), comprising the following steps: sending a call set-up message from said first or second subscriber station (MS) to a switching means (BSC, MSC/VLR) of said mobile radio communication network (PLMN) to set up a call between said first and second subscriber stations (WS, MS); determining on the basis of said call setup message whether said second subscriber station (WS) is of a type also comprising an audio data encoding/decoding means (CODEC); setting up a call between said first and second subscriber station (WS); switching off an audio data encoding/decoding means (DECODE) in said switching means (BSC, MSC/VLR), if said second subscriber station (WS) also comprises an audio data encoding/decoding means (CODEC); and encoding/decoding audio data at said first and second subscriber station (MS, WS) using said respective encoding/decoding means (CODEC) and communicating said coded audio data through said switching means (BSC, MSC/VLR) without applying an audio data coding/decoding thereto in said switching means (BSC, MSC/VLR).

Sieppi does not teach or suggest that the handset may have a plurality of vocoders, or that the loaded vocoder is selected based on a particular type of network communicating with the handset. Instead, Sieppi only describes at most a single encoder/decoder in the handset and switching off the encoder/decoder in the network, if the handset has the necessary encoder/decoder. In Sieppi, there is no selection, or switching, or any control, of a plurality of vocoders in the handset, or any loading of a selected vocoder for execution in the handset.

In addition, as noted above, at the indicated location, Hsu merely describes the following:

Hsu: Col. 16, lines 41-52

Hence, the digital telephone is able to use a web-based approach for navigating the packet switched network for selectively accessing different servers on network 22 to obtain control software or other information related to digital telephone services. For example, the digital telephone may obtain billing and usage information by accessing a web page at the terminal 30 for the customer service center 32. The digital telephone 16 may also access a revision control server 26 configured for maintaining the digital telephone 16 with up to date firmware and/or software, including vocoder software 92, browser software 88, device drivers 94, and operating system 90.

As previously stated, the above portion of Hsu merely describes obtaining up-to-date software for the vocoder from a web server. However, Hsu does not teach or suggest that the handset may have a plurality of vocoders, or that the loaded vocoder is selected based on a particular type of network communicating with the handset. Indeed, the teaching of Hsu is to have only one type of vocoder in the handset, although the version of the vocoder may be updated from a web site.

Thus, the references, taken individually or in combination, do not anticipate or render obvious Applicants' claimed invention. Moreover, the various elements of Applicants' claimed invention together provide operational advantages over the references. In addition, Applicants' invention solves problems not recognized by the references.

Applicants' attorney submits that independent claims 1, 5, 9, 13, 17, and 21 are allowable over the references. Further, dependent claims 2-4, 6-8, 10-12, 14-16, 18-20, and 22-24 are submitted to be allowable over the references in the same manner, because they are dependent on independent claims 1, 5, 9, 13, 17, and 21, respectively, and thus contain all the limitations of the

independent claims. In addition, dependent claims 2-4, 6-8, 10-12, 14-16, 18-20, and 22-24 recite additional novel elements not shown by the references.

IV. Conclusion

In view of the above, it is submitted that this application is now in good order for allowance and such allowance is respectfully solicited. Should the Examiner believe minor matters still remain that can be resolved in a telephone interview, the Examiner is urged to call Applicants' undersigned attorney.

Respectfully submitted,

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